

# BULLETIN of The BUSINESS HISTORICAL SOCIETY

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HENRIETTA M. LARSON, *Editor*

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## A History of Reed & Barton

This month the members of the Business Historical Society are receiving *The Whitesmiths of Taunton, a History of Reed & Barton, 1824-1943*, by George S. Gibb. This is the eighth volume in the Harvard Studies in Business History published at the Harvard Graduate School of Business Administration under the direction of Professor N. S. B. Gras. It is the first volume in the series to be devoted wholly to the history of a manufacturing concern.

The subject of the study is a company known today for its manufacture of silverware. Reed & Barton had its beginnings in a partnership established in 1824 in Taunton, Massachusetts, by two young men of the village who were in the jewelry trade, Isaac Babbitt and William Crossman. Through experiments in his jewelry shop, Babbitt had discovered how to make the Britannia metal used in the ware by that name which the British were selling in the United States. In the workshop of Babbitt and Crossman was produced Britannia ware made according to their own formula. The author traces the history of the concern—in the 1840's it became Reed & Barton—in five parts: (1) The early struggle for existence, 1824-1836; (2) Growth and industrial leadership of the firm under Henry G. Reed, 1837-1860; (3) George Brabrook and the shift to a marketing emphasis, 1860-1900; (4) Financial consolidation under William B. H. Dowse, 1901-1923; and (5) The recent period, 1923-1943.

The book is about one company, but in fact it tells a story that is representative of a segment of our industrial history. The key men were those who owned and administered the firm, but the author sees the business as a group of men, indeed one might say a community, working coöperatively in producing goods to sell, first in a local, then in a regional, a national, and an international market.

In following the history of Reed & Barton the author gives much information on the history of design and of techniques in the use of metals, on external and internal organization, on personnel management, on production control, on pricing, on marketing, and on finance. Success was often tenuous; strain and stress there were aplenty. At rare times employees were difficult; sometimes design, or production, or inventory, or the market gave serious trouble; and there was always the specter of costs to be met, occasionally threatening but always a driving reality. Sometimes there were even clashes among the top men. On the whole, however, the story is one of substantial success. There was the financial success which enabled the company to give its stockholders, employees, and administrators satisfying though moderate rewards, but there was also the producing and selling of a reliable and honest product at prices set in a highly competitive market. It is, on the whole, the success of industrial capitalism at its best in America.

*The Whitesmiths of Taunton* is readable in form as well as rewarding in content. The organization of the book is clear and logical. The characters in the story are drawn as real individuals. The production process, marketing, and finance are handled with the sureness of one who is at home in design, industrial technique, and business in general. Moreover, the author has a gift for turning a subtle phrase that is both entertaining and full of meaning.

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As the members of the Society get one after another of these company histories in the Harvard Studies in Business History, they may wonder about the process of their composition and the purpose for which they are published. These points may well be passed in review at this time.

A primary consideration in preparing these books is to work with the firm itself. The Reed & Barton executives provided free access to the records of the firm and gave such other help as could be of use. During the critical composition of the book the com-



A WHITESMITH AT WORK

pany gave essential assistance when questions of fact arose which they, alone, could help to clear up. They not only supplied information freely and fully, but they left to the author and editor full freedom in the use of that information and in the judgments and generalizations to be drawn therefrom. It was therefore possible to write such a book as could not have been written from outside sources.

The importance of the individual studies resulting from such coöperation may not be clearly evident; they are, however, a part of a process of creating a new literature of business history. They are based on a definite social philosophy. Much of the old work that has been done in and around the history of business has been based on a philosophy of determinism, be it the materialistic determinism of Marx or the natural law philosophies of the eighteenth century. Much has also been written under the influence of the Institutional School, which has emphasized political institutions and their policy as the instruments for attaining a greater social well-being. The Studies in Business History accept the importance of material and social forces and of social and political institutions and policies, but conceive of man as a thinking, choosing, willing, and acting factor within his material and social environment. These efforts may be called empirical or pragmatic; may they not also be considered simply as attempts at that full description which is the primary basis for understanding?

One hastens to add that the result often falls short of that full description which is the aim. Written records have disappeared and men have passed away. Those records which survive generally fail to reveal certain intangibles which are of vital importance. This is a handicap under which students in all fields of history must labor—though literary men and politicians are probably more revealing in the records they leave than are men in business, executive or laborer. Within the period spanned by men still living, memory can be of some help. In the writing of the Reed & Barton history, for instance, the author talked with many individuals who had worked in the factory or who had lived in the Taunton community and had known the company from the community point of view.

What the influence of such a literature of business history may be, no one can foresee. Through the assistance of the companies and of the Business Historical Society, the Studies are reaching many readers of varied interests. Those readers may

be interested in the history of the firm or they may see that history as a part of the larger development of business. They may find in the emphasis on administration and operation something which has general meaning for the social sciences. Without question, administration will be a most vital point in our



REED & BARTON MODERN STERLING TEA SERVICE  
RENAISSANCE PATTERN

NOTE: This illustration and the one on page 99 are reproduced from the Reed & Barton history, with the permission of the Harvard University Press.

economic and political life in the years that lie before us and will require study as never before. It is not inconceivable that this series may do more to put the social sciences on an even keel than expenditures on a far larger scale, made by business and educational institutions, designed to accomplish that end.

## James A. Farrell

1863 - 1943

James A. Farrell, a member of the Business Historical Society, died at his home in New York City on March 28, 1943. A member of the Board of Directors of the United States Steel Corporation at the time of his death, he had for fifty years held administrative positions in the American steel industry.

Farrell entered the industry through production. He began as an unskilled laborer in a wire mill in New Haven, Connecticut, at the age of sixteen. From there he went to Pittsburgh as an expert wire-drawer, becoming foreman in charge of 300 men in the mill of the Pittsburgh Wire Company by the time he was twenty-one years old.

After ten years in production Farrell entered the sales department as sales manager of the same company. He shortly became general manager of the company, in which position he became interested in foreign sales. It was necessary to emphasize foreign sales in view of the fall in domestic demand after the panic of 1893. On the merger of his company with the American Steel and Wire Company of New Jersey, he was made foreign sales agent of the larger concern; and in 1901, through a second merger, he became head of the foreign development division of the United States Steel Corporation. Farrell was largely responsible for the formation in 1903 of the Steel Corporation's export subsidiary. He established the policy of selling abroad on a profitable basis, though indiscriminate dumping characterized some American selling in the foreign market at the time.

From 1911 to 1932 Farrell was president of the United States Steel Corporation. He was an exceptional executive along sales lines, notably in the export business in which he continued to take a lively interest. Through his contact with the market he observed changing demands for steel products, and, while he did not take an active part in initiating technological advancements in steel manufacture, he furthered proposals for such changes as promised to improve the Steel Corporation's facilities and operations. He participated closely in the direction of the building of the new mills at Gary, Indiana. Although the key to his career as an administrator was basically his interest and experience in the marketing of steel products, nevertheless Farrell's work in steel was broad in scope. The Society recalls his inquiries into the early history of the steel industry in New England as exemplified in some of its records.

## The Business Activities of Eric Bollmann

### Part II: The International Promoter<sup>1</sup>

Returning to Philadelphia after an unsuccessful trip to Louisiana in 1807 and 1808, Bollmann entered business again. When a character like Bollmann goes into business, he quite naturally turns promoter, and this Bollmann did in 1808. Foreign trade at the time being seriously interfered with by the struggle between England and France under Napoleon, Bollmann began with the promotion of domestic manufacture.

Since his brother was in some way connected with flour milling in Pittsburgh, Bollmann first looked to that industry and city. Having been interested in steam engines for several years, he hit upon the idea of setting up in Pittsburgh a steam-driven flour-mill, in which \$20,000 was to be invested. For this project he approached three leading citizens of that community, James O'Hara, James Ross, and a Wilkins.<sup>2</sup> Although nothing came of these plans, the effort gave Bollmann additional knowledge of steam engines which was to prove helpful to him later. He criticized the Evans<sup>3</sup> engine as less efficient than the engines constructed on the Boulton and Watt (he wrote "Wells") principle, which latter machines one could buy in New York. In this connection, also, Bollmann came in contact with Robert Fulton, who at that time was planning to set up for his brother-in-law a steam flour-mill in Pittsburgh, which would have been the second in that place.

Bollmann next considered building a dyeing plant in Philadelphia. He intended that the plant should have three or four copper vats, each of 60 to 100 gallons capacity, though one of them might be made of iron because of the difference in cost. Since they were to be installed in a shack, a capital of \$1,000 was considered

<sup>1</sup>For Part I, see *Bulletin* for November, 1943.

<sup>2</sup>Friedrich Kapp, *Justus Erich Bollmann, Ein Lebensbild aus zwei Welttheilen* (Berlin, 1880), pp. 352-354.

On Ross, see *Biographical Directory of the American Congress, 1774-1927* (Washington, 1928), and John Newton Boucher, *A Century and a Half of Pittsburgh and Her People* (New York, 1908), vol. i, p. 493.

On O'Hara: Boucher, *op. cit.*, vol. ii, p. 64, and *History of Pittsburgh and Environs* (New York, 1922), vol. iii, pp. 435-436, 469-470.

The Wilkins was probably William Wilkins. On him, see *Dictionary of*

sufficient. Success would depend upon the quality of American madder which he was planning to use, and he was eager to collect samples and compare them with the Dutch product but it was probably unobtainable because of Napoleon's Continental System. Bollmann then turned his attention to a technical problem which was at that time of great interest all over the civilized world except in England where the problem had been solved, that is, the production of crucible steel.<sup>4</sup> He was just forming a company for that purpose when another promoter turned up in Philadelphia looking for material for crucibles, and Bollmann's friends withdrew. This was to their advantage, for Bollmann was technically on the wrong path. After that disappointment he thought of establishing himself in Philadelphia as a commission merchant for western produce. He himself attributed his difficulties at least in part to the fact that Americans preferred to deal with uneducated men rather than with educated ones.<sup>5</sup>

What materialized after all these efforts was a shop in which Bollmann produced artificial flowers. His raw material was clay, which he mixed with a sandy soil. He first hired one woman who supervised the production, two adult girls, two girls of eleven to twelve years, and a boy of seventeen; later he seems to have employed thirteen people. They all received board and lodging and some wages, but we know wage figures only for the two adult girls, who got \$1.00 per week each. Success rested on the skill of the workers; it was difficult to find satisfactory hands, and when they were trained they were hard to keep. Expenses for board and lodging amounted to \$30, for material and wages to \$40 per week, when operating. Bollmann was convinced that he made a net profit of \$50 per week, and he could not accept all the orders which were offered. But, since the business was growing, he had to plow back what he made and he was dissatisfied. The capital sunk in the shop amounted to \$1,500. Reserves did not exist, and therefore there were periodic difficulties during the two dull seasons of the year, which lasted eight to ten weeks each.

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*American Biography* (New York, 1928-37); *Biographical Directory of the American Congress*.

<sup>3</sup>Oliver Evans (1755-1819), America's first steam-engine builder and inventor of a machine for producing card teeth and of numerous improvements in flour-mill machinery.

<sup>4</sup>See Fritz Redlich, *History of American Business Leaders* (Ann Arbor, 1940), vol. i, pp. 32 ff., 39 ff., 91 ff.

<sup>5</sup>Kapp, *op. cit.*, p. 352.

The enterprise was very short of liquid assets; at one time Bollmann had only \$11 cash and some accounts receivable. In November, 1811, he made up the following primitive profit account:

Sept. 1, 1809 – Nov. 25, 1811		
Total sales		\$6,723.92
Material	\$2,919.69	
Wages	<u>546.35</u>	<u>3,466.04</u>
Profit		\$3,257.88

It is fairly certain that this was gross profit and that the board and lodging of the workers had to be paid from this figure. Assuming this and calculating on the basis of \$30 per week, the figure given by Bollmann, we have to deduct further about \$1,800 for the 60 weeks under consideration, which leaves a net profit for the owner of the shop of \$24 a week. Bollmann, however, claimed to make \$50 a week, probably without considering the off seasons and other factors. On the other hand, it can be suspected that the living expenses for Bollmann himself and his two children are included in the above \$30 per week.<sup>6</sup>

One can easily imagine that this enterprise did not satisfy Bollmann and understand why he soon shifted his attention to another field, the chemical industry. Bollmann had studied chemistry in 1792 when in Paris, at that time the center of the young science. We do not know any of the details, but he seems to have retained his interest in chemistry throughout his varied career so that now he could successfully engage in this line. (Incidentally, it is interesting to compare his career with that of another chemist trained in Paris who began chemical manufacture in America about the same time, Eleuthère Irénée du Pont.) We have already mentioned that among Bollmann's earlier projects were a dyeing plant and the production of crucible steel, both closely allied with chemistry. Now, probably in 1812, he started experimenting with the production of crimson and varnish, the processes being kept secret at that time. In fact, he succeeded in producing the dye stuff and by 1814 came into the market, selling at a price of \$60 per pound whereas his cost was \$15 per pound.<sup>7</sup>

<sup>6</sup>Kapp., *op. cit.*, pp. 355 ff. Bollmann sold, for instance, wreaths for \$10 per dozen. There is, in the Historical Society of Pennsylvania, an unimportant letter of Bollmann's referring to the flower business, dated July 3, 1812, and addressed to one Brandt.

<sup>7</sup>Bollmann also succeeded in purifying pyroligneous acid so as to make it a

Much more important was another branch of Bollmann's enterprise. He seems to have been the first in this country to produce platinum, or platina, as it was called at that time. Platinum had been discovered<sup>8</sup> in South American placers in what is today Colombia; the Spaniards by the middle of the eighteenth century already knew how to fuse the metal and produced such ornamental objects as sword hilts, buckles, and snuffboxes. In 1779 in Paris one Count von Sickingen succeeded in producing platinum foil and wire, and in 1783 a French chemist in Madrid made the first platinum object, a chalice.

It is not known how Bollmann hit on the idea of going into this field. He may have learned about platinum while he was in Louisiana in 1806 and 1807 and again in the winter of 1808, for Spanish traditions were then still strong in New Orleans. It is equally possible that Bollmann learned about platinum from chemical treatises, which he was studying carefully at that time.

Bollmann did not produce the metal by the traditional method but by a new one—about which he had found hints in scientific literature—which was well adapted to the production of the metal on a larger scale and which he kept secret. Whether the development of that method was his own work cannot be ascertained, but it is certain that he was the first, at least on this continent, to make platinum malleable. He succeeded in producing pieces of two pounds and upward and worked them into bars and wire. As a side line he developed a method of using platinum to give pottery a metallic luster, the shades of which could be varied at will. From producing the metal, Bollmann progressed to the manufacture of semi-finished and finished platinum articles, such as plates, scales, crucibles, vessels, lancets, and points for lightning rods. He was particularly interested in plating copper and iron with platinum, but he remained unsuccessful in his attempts to line containers with platinum, since it was impossible to cover the edges with the metal. On the whole, however, he felt that he had gone further than the London and Paris platinum manufacturers who produced the same or similar articles.

We should, of course, like to have more information about the

substitute for distilled vinegar, then used in England for making so-called iron liquor for the dyers and printers in London and Manchester. *Emporium of Arts and Sciences* (Philadelphia, 1813), vol. i, p. 181.

<sup>8</sup>The following data are taken from the American, English, French, and German encyclopedias. For data on Bollmann's platinum production, see Kapp, *op. cit.*, pp. 360 ff. Also *Emporium*, 1813, vol. i, pp. 181, 344 ff.

business end of this enterprise. We do not know where he bought the ores and how they were shipped. We do know that about \$2,000 was invested in his plant, that in 1813 Bollmann sold platinum and platinum articles to the amount of \$3,000, and from January 1, 1814, to the end of April, 1814, to the amount of \$1,300. Of course, platinum was worth much less then than it is today, so that this turnover indicates a much larger output than would be indicated on the basis of the present price level. Among Bollmann's customers was the secretary of the Navy, who bought 300 points for lightning rods at \$500, and the secretary of the Army was interested in a purchase. Like every producer of a new material, Bollmann had to develop his own market, and we find him working in various directions. He suggested the wearing of a "medal" of platinum and copper alloy to distinguish American seamen from the British as an aid in settling the impressment controversy with England.<sup>9</sup> He tried to induce banks and the secretary of the Treasury to use platinum instead of paper as a circulating medium, and he had interviews with the governor of Pennsylvania, suggesting the introduction of platinum for weights and measures, an exceedingly sound idea. He also seems to have had preliminary negotiations in 1814 with the Pittsburgh glass industry for the use of platinum, which negotiations came to naught since the enterprises in question made an impossible request, that he give credit for five years to an amount of \$10,000 to \$15,000. The platinum enterprise was suddenly abandoned in 1814 when Bollmann decided to go to Europe again, intending among other things to sell his method of making platinum malleable. There he corresponded with the Russian minister of Finance and, as he had already done in America, proposed the coining of money out of platinum, besides making the same suggestion to the Austrians. In fact, many years later Russia did coin money from platinum, but it is impossible to establish any connection between that fact and Bollmann's proposal.

As just mentioned, Bollmann returned to Europe in 1814 and after short visits in London and Paris, repaired to Vienna, where the peace conference was meeting at that time. There, as an agent of Baring Brothers & Co., he negotiated with Austrian statesmen a

<sup>9</sup>In a letter of April 20, 1813, to one of the American commissioners to the peace conference after the War of 1812. See *Papers of James A. Bayard, 1796-1815*, edited by Elizabeth Donnan, *Annual Report of the American Historical Association* (Washington, 1915), vol. ii, p. 207.

purchase of mercury.<sup>10</sup> Because of the war, large quantities of this metal had been stored up in Idria, which was then as it is today very important in the production of mercury; there the metal was mined and manufactured by the state. The buyers intended to export the purchased quantity to South America where much quicksilver was used in gold mining.<sup>11</sup> In fact, South America, chiefly Peru, used at that time annually about 25,000 quintals of mercury, and the gold mines of that continent had come to depend (beyond a small production in Peru) upon the importation of European mercury, which came partly from the Spanish mines at Almaden and partly from those in Idria. Under the mercantilist Spanish colonial system, metal mined in Idria was acquired by the Spanish government at a stipulated price, brought to Spain, and exported thence to South America. The Barings and Bollmann, however, planned to export their purchases of mercury, i.e., 4,000 quintals, directly to South America.

The business, as Bollmann explained in a letter of 1816,<sup>12</sup> was well planned and well executed, the Barings putting £40,000 into the venture. There was a speculative element in the transaction, however, for profitable outcome depended upon the success of the revolution in South America. The Spanish government considered the import of mercury into their American provinces as a monopoly of the crown, and the metal was seizable wherever found if not furnished to the consumers by agents of the government. Since the war in South America did not develop as favorably as had been expected, the metal in 1816 still lay unsold in Jamaica, where it had been forwarded to await sale and shipment to Peru. Nothing could be done but sell the lot to a North American concern, which shipped the metal to China.

This mercury business, however, was not what took Bollmann to Vienna in 1814; indeed, it came up after he was already there. We have noted that Bollmann had run a steam-driven rolling mill and that in his effort to promote a steam flour-mill in Pittsburgh he had studied steam engines and had become personally acquainted with Robert Fulton. Therefore, it is not surprising

<sup>10</sup>It was first planned to acquire the mercury for four North American firms, the Barings guaranteeing the purchase, and only when this scheme for unknown reasons did not work the Barings themselves met the contract.

<sup>11</sup>Third American edition of Nicholson's *British Encyclopedia or Dictionary of Arts and Sciences* (Philadelphia, 1819), vol. vi, article on gold.

<sup>12</sup>Letter of Oct. 14, 1816, in Kapp, *op. cit.*, p. 401; Eric Bollmann, *Letter to Thomas Brand* (London, 1819), pp. 26-27.

that he hit upon the idea of introducing the steamboat on the Continent, and efforts in that direction kept him busy for more than a year. During his stay in Vienna he discussed with Austrian statesmen a plan for establishing a steamship line on the Danube. But there he ran into a conflict of interests, centering in two men each of whom claimed priority of rights, and the idea of promoting steamboating on the Danube had to be abandoned.<sup>13</sup> With certain other people Bollmann discussed the possibility of having steamboats ply the Rhine. Furthermore, he suggested to the Prussian minister of Finance steamers on the river Elbe; and about the same time he also got in touch with Senator (later Mayor) Smidt of Bremen, the great Hanseatic statesman, and began interesting negotiations with him and other leading men of that city. He proposed setting up a steamship line on the Weser within the border of the Free City of Bremen. For this purpose he first planned to go into partnership with Smidt, but later he thought of founding a corporation which, similar to Robert Fulton's original arrangement, should receive an exclusive privilege for 14 years.<sup>14</sup> Bollmann first intended to build a steamboat for from 100 to 150 passengers, which should be 160 feet long and 16 to 18 feet broad. Such a steamboat would, he held, cost \$12,000 to \$14,000 in Philadelphia, and he hoped that it could be built for 16,000 *Thaler*<sup>15</sup> in Bremen. This price would include the engine, which was to be ordered in England. He was sure that the steamboat could be amortized within 16 years and that the machinery would last longer than that.

Bollmann estimated the annual income and costs of the prospective enterprise, for a year of 240 days, as follows:

#### INCOME

20	passengers	Bremen-Vegesack and Vegesack-Bremen	<i>Thaler</i>
20	"		
40	"	per day for 240 days at 1 <i>Thaler</i> each	9,600
10	"	Bremen-Brake	
10	"	Brake-Bremen	
20	"	per day at 2 <i>Thaler</i> each	9,600
			19,200

<sup>13</sup>Letters of Bollmann of Dec. 14, 1814, and January 3, 1815, among the letters intercepted and copied by the secret police of Vienna and published by August Fournier in Vienna and Leipzig in 1913 under the title *Die Geheimpolizei*

## EXPENDITURES

5% interest on capital	16,000 <i>Thaler</i>	800
Amortization under the supposition that the steamer will be worthless after 16 years		1,000
1½ cords wood for each trip, i.e., 360 cords at 6 <i>Thaler</i> per cord		2,160
Three seamen's wages and board at 30 <i>Thaler</i> per month		720
Captain 800 <i>Thaler</i> per year		800
Engineer 800 <i>Thaler</i> per year		800
Repair work and other costs	1,000	<u>7,280</u>
Net profit,		11,920 <i>Thaler</i>

This calculation was based on the presupposition that the steamer would run from the middle of March to the middle of November, every day in the morning from Bremen to Vegesack and Brake and in the afternoon back from Brake via Vegesack to Bremen. Bollmann hoped that the actual costs would be lower than those put into the calculation, because the steamer would probably have a longer life than 16 years, because one could use peat instead of wood, and because neither the use of the steamer for pleasure trips nor small profit items were considered, such as charges for suitcases, trunks, and provisions to be sold on board.

Convincing the very progressive gentlemen from Bremen that there was something to this plan, Bollmann in March, 1815, set out to purchase a steamboat. He went to England and studied the steamship-building industry there, but decided that it was not so far advanced as America's. Thereupon he considered for some time getting the boat built in Europe according to American plans, buying the engine himself in New York and sending a German engineer over here to study the machine. But as the Bremen entrepreneurs became worried about the chances for profit, Bollmann had to stay in Europe to save the project. He was convinced that the steamboat would earn at least a fair interest on the invested capital, and, if not, that it could be sold in England at a favorable price. He drew the attention of his friends particularly to the possible Sunday traffic in summer—the steamer would bring

*auf dem Wiener Congress.* Bollmann's letters are on pages 324, 356-357.

<sup>14</sup>Kapp, *op. cit.*, pp. 354, 386 ff.

<sup>15</sup>One *Thaler* was worth about 75 cents.

the beautiful country around Vegesack to the gates of Bremen, and pleasure trips would contribute to the profitability of the plan.

At this point Bollmann made the first concrete proposals as to the business end of the scheme:

1. As already suggested, an exclusive privilege was to be taken out for 14 years in his name for the use of steam engines in driving boats on the river Weser within the confines of the Free City of Bremen.

2. A small corporation was to be set up consisting of 12 to 18 shareholders, to which Bollmann would transfer his privilege and which would provide the necessary capital. The shares were to have a face value of at least 1,500 *Thaler* each. In order to preserve a friendly spirit in the corporation, the shares should be salable only with the consent of the other shareholders.

3. Bollmann as the promoter, in consideration of the transfer of his rights and for the supervision of the enterprise either personally or through a substitute, was to receive four shares. He was willing to take one more share as a subscriber. No salary should be paid for managing the enterprise in addition to the above remuneration.

4. Bollmann would be able to make an arrangement with the builder of the boat that only £200 was to be paid with the order, the rest after the boat had been delivered in Bremen and had made one trip up and down stream satisfactorily.

When Bollmann made these detailed proposals in the fall of 1815, he had found out that satisfactory steamboats were then being built in Glasgow and that good engines for steamers were being sold by Boulton & Watt. Thus the plan to buy an American engine could be abandoned. An English engineer, by the name of Charles Broderip, was willing to contract for a steamboat, able to carry 200 passengers and 10 tons of freight, with a hundred foot keel, a breadth of 22 feet, and a 5 foot draft, to be driven by a 45 horsepower steam engine. This power was considered sufficient, under the supposition that the river had a velocity of one league per hour. The boat was to cost, completely furnished, £5,800 and would be delivered in Bremen in May, 1816. As already indicated, £200 would have to be paid immediately and the rest after delivery in 90 days' drafts on London or Scotland with 2½ per cent discount. The cost of bringing the steamer from Leith to Bremen and insurance would have to be paid by the corporation. The contractor required that the Bremen gentlemen should give references in England, and Bollmann suggested either Baring Brothers & Co. or William J. Hoffmann, of London.

This promotion of Bollmann's also came to naught, but he paved the way for the early introduction of a steamboat line on the Weser, which was established only a year after the date he had planned. Bollmann's lack of success resulted from his suggestion that a corporation should be created for the new enterprise; the day of the corporation had not dawned in Germany. The man who actually set up that first German steamboat line, more or less following Bollmann's recommendations, ran the enterprise at his own risk with his own capital.

After this unsuccessful promotion and another short stay in America, Bollmann settled as a chemical manufacturer in London, but his enterprise there is not of any particular interest. However, in 1821 Baring Brothers & Co. sent him as their representative to South America, probably in order to explore the possibilities of the mercury business and to negotiate a loan to Bolivar, whom Bollmann met personally in what is now Colombia. We do not know any details of his commission and negotiations, but we do know that he was successful and that he died from a tropical fever on the way home in December, 1821, in Kingston, on the island of Jamaica.<sup>16</sup>

FRITZ REDLICH,  
Cambridge, Massachusetts.

## Another Collection of Business Records

A recent letter to the Editor brings word that a new manuscript collection, The Western Historical Manuscript Collection, is being established at the University of Missouri. W. Francis English, an historian, is the director; the manuscripts will be housed in the Library of the University. Though the collection is to cover all aspects of Western history, the Director is very much interested in preserving the business records of Missouri and the surrounding region.

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<sup>16</sup>A biography of Eric Bollmann, by the author of this article, will be published shortly.